## ABSTRACT OF THE DISCLOSURE

A wireless transmission system which adaptively selects a plurality of modulation schemes according to variations in a propagation path characteristic, capable of estimating the modulation scheme of a received signal more easily with a substantially simple configuration. This system adds priority order to modulation schemes to be candidates for modulation scheme estimation

10 processing, carries out estimation processing on modulation schemes one by one in descending order of priority and confirms the modulation scheme of the received signal when predetermined likelihood is obtained.